5

10

15

20

25

Abstract

The invention relates to medicine and veterinary science and can be used for treating diseases associated with changes of the qualitative and/ quantitative composition of blood extracellular DNA, namely generalised infection diseases provoked by bacteria, diseases provoked by fungi and protozoa, atherosclerosis, pancreatic diabetes, allergic diseases associated with delayed response hypersensitivity and diseases due to somatic cell gene mutations. The inventive method for treating diseases associated with modifications of the qualitative and/or quantitative composition of blood extracellular DNA, namely generalised infection diseases provoked by bacteria, diseases provoked by fungi and protozoa, atherosclerosis, pancreatic diabetes, allergic diseases associated with delayed response hypersensitivity and diseases due to somatic cell gene mutations consists in injecting an agent destroying blood extracellular DNA. DNAse enzyme injected into a systemic blood circulation in doses which modify the electrophoretic profile of the blood extracellular DNA definable by pulseelectrophoresis can be used in the form of an agent destroying said blood extracellular DNA. Said DNAse enzyme can be injected in doses and at regimes ensuring the level of a blood plasma DNA-hydrolytic activity which is measured in the blood plasma and is higher than 150 Kunz units per litre of plasma during a total time higher than 12 hours a day. The inventive method makes it possible to develop a high-efficient and lowtoxic method for treating diseases associated with modifications of qualitative and/or quantitative composition of blood extracellular DNA individually or in combination thereof.